



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,263	01/16/2002	Toshihiko Fukuoka	60188-144	3551

7590 11/01/2005  
Jack Q. Lever, Jr.  
McDERMOTT, WILL & EMERY  
600 Thirteenth Street, N.W.  
Washington, DC 20005-3096

EXAMINER

HOANG, THAI D

ART UNIT PAPER NUMBER

2668

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> <u>10/046,263</u>	<b>Applicant(s)</b> FUKUOKA ET AL.	
	<b>Examiner</b> Thai D. Hoang	<b>Art Unit</b> 2668	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on Application filed on 01/16/2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 7-9 is/are rejected.
- 7) ☒ Claim(s) 3-6 and 10-13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

*H. Nguyen*

HANH NGUYEN  
PRIMARY EXAMINER

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>08/14/03 &amp; 12/03/03</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 1 is objected to because of the following informalities:

The statement "receiving/outputting" recited in claim 1 is not clear because it could be "receiving and outputting", or "receiving or outputting".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 8, the statement "whereby MPEG packet data that is a collection of 8-bit byte data including a sync byte is output from the parity check block" is confusing. According to the specification page 13, lines 7-13, the sync byte is outputted at a second calculation block 11 (fig. 2). It is not outputted at a parity check block 2 (fig.1) or selection circuit 12 (fig. 2) as recited in the claims. In addition, page 24, lines 11-19, the specification discloses that the code "47hex" is used for checking parity and synchronizing. In case of the system detects any error, it "does not output '47hex'". It indicates that the sync byte is not always outputted from the parity check block. Nevertheless, page 24, lines 11-19, the specification shows that the sync byte is outputted at parity check block 2 (or selection circuit 12 of fig. 2), whereas, page 13,

lines 7-13, the specification discloses the sync byte is outputted at a second calculation block 11. It is not clear what is meant by "whereby MPEG packet data that is a collection of 8-bit byte data including a sync byte is output from the parity check block". Claims 2-7 and 9-13 are rejected because they depend on rejected claims 1 and 8 respectively.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodama et al., US patent application publication 2002/0004925 A1 in view of Chappell et al., US patent application publication 2003/0014763 A1, hereinafter referred to as Kodama and Chappell respectively.

Regarding claims 1-2 and 7-9, as best understood, Kodama discloses an error correcting device, wherein the device comprises:

an error correcting circuit 42 (figs. 1, 7, 10-12, 39 or element 4, fig. 39) that receives input data from a receiving circuit 1, and performs error detection and error correction of the received data block (8 bits) (a parity check block for receiving the 8-bit byte data which has been converted by the data rearrangement block, and performing an MPEG sync byte detection operation and a parity-check-based error detection operation using the received byte data);

a storage device 41 (figs. 1, 7, 10-12, 39 or element 3, fig. 39) for receiving and storing 8 bit data block received from a receiving circuit 1 and from the output of error correcting circuit. Also, Kodama discloses that the receiving circuit receives a synchronization signal located at the head of each one frame of a data format (a data storage block, capable of receiving/outputting 8-bit byte data, for receiving and storing the 8-bit byte data, which has been converted by the data rearrangement block, and 8-bit intermediate byte data produced during a calculation process for the MPEG sync byte detection operation and the parity-check-based error detection operation performed by the parity check block); and

a transmission circuit 5 for outputting data and synchronization signal.

Kodama does not disclose that the system comprises a data rearrangement for receiving 7-bit data and converting the 7-bit data to 8-bit data. However, Chappell discloses this feature in paragraph [0008]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Chappell's converter into the system disclosed by Kodama in order to adapt with conventional systems using Reed-Solomon code.

Regarding claims 2 and 9, Chappell does not explicitly disclose how the system converts 7 bit data block to 8 bit data block. However, the method of using shift registers to convert 7 bit data block of the data stream to 8 bit data block is well known in the logic design. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use shift registers to convert 7 bit data block to 8 bit data block in order to fit with 8 bit MPEG data block.

Regarding claim 7, Kodama discloses the storage is a RAM [0114].

***Allowable Subject Matter***

Claims 3-6 and 10-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to the application:

US Patent 5703887 A, Heegard et al., "Synchronization and error detection in a packetized data stream."

US Patent 2001/0005385 A1, Ichiguchi et al., "Multimedia information communication apparatus and method."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D. Hoang whose telephone number is (571) 272-3184. The examiner can normally be reached on Monday-Friday 10:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Chieh can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2668

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thai Hoang

TH

HNguyen

HANH NGUYEN  
PRIMARY EXAMINER